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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CAVALLARI, DANIEL J

ART UNIT	PAPER NUMBER
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2836

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/609,079	Applicant(s) PARKER ET AL.	
	Examiner Daniel J. Cavallari	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 11, 12, 15, 16, 18-23, 25-28, 32 and 33 is/are pending in the application.
- 4a) Of the above claim(s) 20 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 21-23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 12, 15, 16, 18, 25-28, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

The examiner acknowledges a submission of the amendment filed on 7/5/2006. The changes to the drawings and abstract and amendments to claims 15 and 18 are accepted.

Response to Arguments

The previously made objections to Figures 8 & 9 and the abstract as well as the 112 rejection of claim 15 have been withdrawn in view of the amendments.

The examiner thanks the applicant for pointing out the mislabeling of the withdrawn claims on the "Office Action Summary" form. The non-final rejection accurately listed and explained the withdrawn claims, which the applicant noted. At this time, claims 4-10, 13-14, 17, 20, 24, 29-31 and 34 are considered withdrawn.

Applicant's arguments, see page 12, filed 7/5/2006, with respect to claims 32 & 33 have been fully considered and are persuasive. The objection of claims 32 & 33 has been withdrawn.

Applicant's arguments filed 7/5/2006, with respect to the 102 rejection of claims 1, 2, 11, 12, 15, 18, 25, 26, 32, & 33 have been fully considered but they are not persuasive.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the connector module being a component mounted to a circuit board and not the boards themselves) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

The applicant argues that claims 1, 15 and 25 do not meet the applicant's claimed limitations because of the difference between the relationship of the connector and the circuit boards. The examiner points out that the preamble states "A connector module comprising..." therefore only those limitations that are positively recited in the claim are given weight to the "connector module".

The applicant further argues that "With respect to claims 3 and 16, applicants respectfully submit that neither Elkayam, Binder not [sic] Pannell, alone or in any combination, teaches or suggests PoE functionality within a connector module as claimed" (See Applicant's Remarks, Page 14). The examiner respectfully disagrees and points out that Elkayam et al. teaches PoE circuitry (See Figure 2 and Paragraphs 3, 6, 69, & 76).

Claim Objections

Claim 20 is objected to because of the following informalities:

- The status indicator of claim 20 is incorrect. The claim has been withdrawn in view of the restriction however was still indicated as "(Original)".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11, 12, 15, 18, 25, 26, 32, & 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Elkayam et al. (US 2003/0099076 A1).

In regard to Claims 1 & 2

- At least one Ethernet jack (24) adapted for coupling to a link (34) (See Figure 1 & Paragraph 69-72).
- Circuitry (56) coupled to the jack (24) and configured to perform power-over-Ethernet operations for supplying power through the jack (See Figure 2 & Paragraph 69 & 76).

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In regard to Claim 11

- The connector module being implemented on a circuit board (See Paragraphs 6, 32, 73) within a switch device, read on by the switching hub (See Paragraph 32) including a housing (See Paragraph 32 & Figure 1 which shows the chassis (16) and Ethernet circuit board (14)) which encloses the connector module with at least one jack (24) accessible (See Figure 1).

In regard to Claim 12

- The connector module adapted to receive DC voltage (See Figure 1 & Paragraph 18) and transmit power to IEEE 802.3af compliant powered devices coupled to the at least one Ethernet jack (24) of the connector module (See Paragraphs 22, 71, & 76).

In regard to Claims 15 & 18

- A plurality of jacks (24) adapted for coupling to a link (34) (See Figure 1 & Paragraph 69-72).
- Circuitry comprising a transformer (See Paragraph 75) which connects and supplies power to the jacks and POE circuitry, read on by the output power control circuits (58) which are used to vary the amount of power supplied over any of the plurality of Ethernet jacks (24) (See Figures 2, 3, & Table I & Paragraphs 76, 79, & 80).

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- The POE circuitry (58) being coupled to the transformer (See Paragraph 75) as the connectors are described as coupled to the transformer, which are coupled to the support circuitry (55) which are coupled to the power distribution and control circuitry (56) which are coupled to the output power control (58) (See Paragraph 75).

In regard to Claim 25

- A housing (See Paragraph 32 & Figure 1 which shows the chassis (16) including at least one jack (24) (See Figure 1).
- POE circuitry (55, 58) contained within the housing (16) and directly coupled to the jack (24) (See Figure 2).

In regard to Claim 26

- The jack (24) being an Ethernet jack (See Paragraph 69).
- The POE circuitry (55, 58) mounted on a circuit board, read on by the switch board (See Figure 2 & Paragraph 73).

In regard to Claims 32 & 33

- The housing (16) comprising a first input (24) and a first output (24) read on by the various connectors (24) (See Figure 1 & Paragraph 69) in which multiple modules are connected to each other (See Paragraph 69) in which Elkayam teaches a switch (26) being connected to other switches (26).

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- A cascade serial communication interface, read on by the multiplicity of jacks (24) (See Figure 1) in which other modules can be serially connected as well as cascaded from the other connected modules.

Although Elkayam teaches the connection of neighboring modules, he fails to explicitly teach power from a first neighboring connector module provided to a second neighboring connector module. However, Elkayam teaches the capability of providing power from one module to another module in a cascade fashion.

It has been held that the recitation that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchinson, 69 USPQ 138.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to transfer power from one module to another in a cascade fashion in order to power the devices without having to provide a separate power supply connection to each module.

Claims 25, 32, & 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Mouton (US 2002/0002672 A1)

In regard to Claim 25

- A connector module (WCH1) including a housing, read on by a cabinet (See Paragraph 19 & Figure 1) including at least one jack, read on by the ports (See

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Paragraph 20) formed in the housing (cabinet) and POE circuitry (S20) contained within the housing (See Figure 1 & Paragraph 23).

In regard to Claims 32 & 33

The connector module (WCH1) adapted to receive power from a first neighboring connector module, read on by the connector module (S30) and a first output adapted to provide power to a second neighboring connector module (WGH1) (See Figure 1 & Paragraphs 17-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Elkayam et al. & Binder (US 2005/0047431).

Incorporating all arguments above of the connector module taught by Elkayam, Elkayam teaches connectors used to connect to computer devices (See Figure 2 & Paragraph 69) but fails to explicitly teach the type of connector (24) used.

Binder teaches a LAN outlet with POE capability (See Claim 47) in which an RJ-45 type connector is used (See Paragraphs 5 & 26).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the RJ-45 type connector as the specific connector (24) in the invention of Elkayam. The motivation would have been to use a specific connector well known and used in the industry (See Binder, Paragraph 26).

Claims 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Elkayam et al. & Pannell et al. (US 6,977,507)

Incorporating all arguments above of the connector module taught by Elkayam, Elkayam fails to teach the use of LED indicators for the status indication of the jacks.

Pannell et al. (hereinafter referred to as Pannell) teaches a network device (300) with a plurality of RJ-45 jacks (See Column 8, Lines 55-61) and the status of the jacks are displayed using LED's in which each jack has a corresponding LED (See Column 8, Line 62 to Column 9, Line 10) and the corresponding LED operates in a first state when the link is disconnected and a second state when the link is coupled.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the LED display taught by Pannell in which to indicate the jack status of the invention of Elkayam. The motivation would have been to provide a visual means of the status of the devices.

Allowable Subject Matter

As previously indicated, Claims 19 & 21-23 are allowed. Claim 20 has been previously restricted but will be rejoined if and when the case is allowed.

Prior art fails to teach a PoE circuit comprising of a plurality of voltage sensing contacts that detect whether a powered device is coupled to an Ethernet jack and which prioritizes the plurality of Ethernet jacks wherein a first contact receives a DC voltage and a first and second interface receive control information and couple a serial connection to neighboring PoE circuits respectfully.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

September 18, 2006



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